

## REMARKS

This is in response to the Office Action mailed on March 27, 2006, and the references cited therewith.

Claim 23 was amended. Claims 1-8, 12-13 and 17-24 are now pending in this application.

### §112 Rejection of the Claims

Claims 3-4, 8 and 22 were rejected under 35 USC § 112, first paragraph, as failing to comply with the written description requirement. The language from such claims has been added to paragraphs [0010] and [0011] to provide support. Support for such additions derives from the claims themselves. No new matter has been introduced into the application.

### §102 Rejection of the Claims

Claims 1-2, 12, 17-19 and 21 were rejected under 35 USC § 102(a and b) as being anticipated by Applicant Admitted Prior Art (AAPA) and Lopez-Aguado (US Patent No. 5,586,283 – hereinafter referred to as Lopez). This rejection is respectfully traversed, as the art does not show each and every element of the claimed invention.

Claim 1 recites that the virtual address is combined with an entry in the second level table obtained using the offset. The background of the present application, which is referred to as AAPA by the Office Action indicates that the second table entry is combined with further bits (ie., bits of the virtual address that were not used to find an entry in the first table) to point to an entry in a third table. This is different than the language of the claim, and hence cannot anticipate the claim. Claims 2, 12, 17-19 and 21 contain similar language and distinguish for the same reasons.

Lopez's Fig. 1 is cited as describing the same claim language. Lopez describes a table walk process in Columns 3 and 4 to find a page table entry by walking through three tables. At col. 3, line 55 “Each PTP (*page table entry*) is used in conjunction with a specified field in the virtual address to select an entry in the next level of tables.” Thus, as can be seen, the language of the claims “combining the virtual address with an entry in the second level table obtained using the offset” is not met, and the rejection should be withdrawn. Only a portion of the virtual

address in Lopez is combined with the table entry in the second level table, not the entire virtual address as claimed. Thus, the present application allows the resolution of the physical address with only two tables in many instances. The prior art does not show this ability, and the rejection should be withdrawn.

With respect to claims 2, 19, and 21, the Office Action indicates that paragraph [0003] of the application discloses that the entry in the table comprises control bits and valid bits for the pages. Applicant cannot find such disclosure in that paragraph, and respectfully traverses the statements in the Office Action.

**§103 Rejection of the Claims**

Claims 5-7, 13 and 20 were rejected under 35 USC § 103(a) as being unpatentable over AAPA or Lopez in view of a well known features in which official notice is taken. This rejection is respectfully traversed, and it is requested that an affidavit or citation to art be provided to show the features in which official notice was taken.

Claims 5-7, 13 and 20 contain elements with are similar to claim 1, such as the combining or “concatenating” the virtual address with bits from the entry in the second level table and thus are believed to distinguish from the references for at least the same reasons. Claim 7 further indicates that the virtual address is concatenated with bits from the second level table if a bit is valid, otherwise using a third table to obtain bits with which to concatenate to the virtual address. This claim describes the entire address translation process that is used in circumstances where the address cannot be resolved with the use of two tables. The Office Action does not address the additional elements of claim 7 that provide this ability to use either two or three tables for the address translation as a function of a valid bit. As one or more elements are lacking from the references, a proper *prima facie* case of obviousness has not been established and the rejection should be withdrawn.

Allowable Subject Matter

Claims 23-24 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 23 has been so rewritten in independent form and is thus believed in condition for allowance.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 373-6972 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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Date 6-26-2006

By



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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 26 day of June, 2006.

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